

REMARKS

Applicant thanks the Examiner for the very thorough consideration given the present application.

Claims 1-3 and 5-11 are now present in this application. Claims 1, 10 and 11 are independent. Claims 12-20 have been canceled without prejudice to presenting those claims in a separate, e.g., a divisional, application. By this Amendment, claims 1, 10 and 11 are amended and claim 4 is canceled. No new matter is involved.

Reconsideration of this application, as amended, is respectfully requested.

Election of Species Requirement

The Examiner has made the Election of Species Requirement final, has withdrawn claims 13-20 from further consideration and has required cancellation of claims 13-20 or other appropriate action. Accordingly, Applicant has canceled claims 13-20 while retaining the right to file these claims in a divisional patent application.

Entry of Amendments

Applicant respectfully submits that it is proper to enter the amendments to the claims. The amendment to claim 1 merely adds a portion of the subject

matter from claim 4, which has been examined on the merits already. The amendment to claim 11 merely adds subject matter from claim 12, plus a limitation similar to the limitation added to claim 1, which has been examined on the merits already. The amendment to claim 10 cancels subject matter that the Office Action gives no patentable weight to in the rejection of claim 10 and merely adds that the wobbling is in a predetermined direction and according to a reference level, a tilt reference being already recited in claim 3, for example, and therefore, searched and examined already. Moreover, the amendments reduce the number of claims, thereby reducing the number of issues presented to the Examiner for consideration.

Rejections Under 35 USC §103(a)

Claims 1-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,107,478 to Tamaru et al. ("Tamaru") in view of U.S. Patent 5,682,372 to Yamakawa et al. ("Yamakawa"). This rejection is respectfully traversed.

Because the rejection is based on 35 U.S.C. §103, what is in issue in such a rejection is "the invention as a whole," not just a few features of the claimed invention. Under 35 U.S.C. §103, "[a] patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious

at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." The determination under §103 is whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. See In re O'Farrell, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988). In determining obviousness, the invention must be considered as a whole and the claims must be considered in their entirety. See Medtronic, Inc. v. Cardiac Pacemakers, Inc., 721 F.2d 1563, 1567, 220 USPQ 97, 101 (Fed. Cir. 1983).

In rejecting claims under 35 USC 103, it is incumbent on the Examiner to establish a factual basis to support the legal conclusion of obviousness. See, In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one of ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. F-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017

(1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. Note, In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Eritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be suggested or taught by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

A showing of a suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding." C.R. Bard, Inc. v. M3 Sys. Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not "evidence." See In re Dembiczak, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir. 1999).

Initially, Applicant notes that claim 4 has been canceled and a portion of its subject matter added to claim 1.

Tamaru discloses a tilt device for controlling the optical axis of an optical head in an optical disc playback device, which includes a servo system responsive to the detection signal for controlling the tilt mechanism to maintain the distance between the optical pickup and the optical disc constant. In columns 6 and 7, Tamaru discloses detecting the distance between the optical pickup and the optical disc on the basis of a focus drive DC voltage produced by the optical pickup – see col. 5, lines 45-68.

Tamaru does not disclose (1) tracking a focus error for maximizing an RF signal or maximizing jitter when a focus is on; or (2) calculating a variation per track of the focus error to control the tilt using the variation.

The outstanding Office Action states that Tamaru calculates a variation per track of the focus error to control the tilt using the variation, and discloses this feature “on claim 3, where a detection means produces a detection signal based on a focus drive DC voltage, and a servo controls a tile means in response to the detection signal.”

Applicant respectfully disagrees with this assertion. Claim 3 of Tamaru says nothing about variation per track and merely states that the distance between an optical pickup and an optical disk is produced by the optical pickup based on the distance between the optical pickup and the optical disk.

This passage of Tamaru's claim 3 says nothing about focus error, or about a variation per track of focus error, or about calculating a variation per track of focus error.

Accordingly, the Office Action fails to provide objective factual evidence of record that Tamaru discloses "calculating a variation per track of the focus error to control the tilt using the variation," as recited.

In order to remedy the deficiencies of Tamaru, the Office Action turns to Yamakawa, which discloses a system for playing back multilayer discs. Yamakawa focuses on a first recording layer and then focuses on a second recording layer – see col. 3, lines 14-67. The focus servo technique used by Yamakawa for each layer is applied generally at a point where the amplitude of the playback RF signal assumes a maximum value or the jitter of the playback RF signal is set to a minimum value – see col. 3, lines 45-47. As explained in col. 5, lines 9-58, Yamakawa's focus balance-setting circuit 16-2 adjusts the focus error voltage so that the optimum reading from the optical disc can be done.

The Office Action concludes that it would be obvious to detect the track of the focus error of Tamaru where an RF signal is maximum or jitter is minimum as suggested by Yamakawa, and to detect the maximum and minimum value of a focus error, the motivation being to obtain optimum focus to optimize reading from an optical disk.

The previous Office Action referred to U.S. Patent 6,240,055 to Takamine et al. ("Takamine"), which allegedly teaches that the best focus is obtained where an RF signal is maximum or jitter is minimum.

Applicant had indicated that he did not understand this rejection to the extent that the Office Action does not make it clear whether Takamine is being applied as an alternative to, or in conjunction with, Yamakawa. Clarification was required.

The outstanding Office Action responds to this request for clarification by referring to page 5, item 12, which states that the rejection is based on Tamaru in view of Yamakawa and actually removes any mention of Takamine from the outstanding rejection.

Nevertheless, the Office Action has now dropped any reference to Takamine, apparently realizing that it was not proper to have included the teachings of Takamine in the previous Office Action.

Applicant continues to traverse the rejection for reasons presented in the Amendment filed on July 18, 2005, as follows:

Tamaru, the base reference, is directed to keeping a specified distance between the optical pickup and the optical disk to keep the optical axis of an optical pickup perpendicular to the bent surface of an optical disc – see the Abstract and col. 2, lines 41-46, by using a tilt feature, whereas Yamakawa has no disclosure of a tilt feature and, instead, is directed to obtaining a neutral

focus balance characteristic for different layers of a multilayer disk. In other words, Yamakawa is not directed to controlling tilt at all and the Office Action contains no objective factual evidence that a skilled worker would be motivated to apply the focus control servo of Yamakawa to control the tilt of Tamaru.

The Office Action argues that whether or not Yamakawa is directed to controlling tilt is irrelevant and that Yamakawa was relied on to show that the claimed details of the focus error measurement would have been obvious. Applicant respectfully submit that the burden is on the Office to demonstrate by objective factual evidence that one of ordinary skill in the art would turn to Yamakawa to modify Tamaru, and the Office Action does not provide such evidence. The alleged motivation to modify Tamaru in view of Yamakawa to have detected the maximum value and the minimum value of the focus error of Tamaru is "to obtain maximum focus, thereby optimizing reading from the optical disk (see column 5, lines 10-12).

Applicant respectfully submits that the Office Action has shown no problems with Tamaru's tilt control system or focus control system that would motivate a skilled worker to turn to Yamakawa to modify them. Moreover, the problem that is addressed in Yamakawa, i.e., preventing a focus servo from getting out of focus when jumping from one of a plurality of layers of a multilayer disk to another layer, has not been demonstrated to exist in Tamaru. Applicant respectfully submits that one of ordinary skill in the art



would have no motivation to turn to Yamakawa to solve a problem that simply does exist in Tamaru. It would appear that the only motivation to do so exists in Applicant's disclosure, which may not properly be used against Applicant.

Furthermore, because Yamakawa does not address the problem of tilt control, the Office Action has not demonstrated that it would be obvious to use the focusing system of Yamakawa to control tilt.

Additionally, none of the applied references discloses "calculating a variation per track of the focus error" at all, let alone, "to control the tilt using the variation," as recited. At best, the two secondary references, Yamakawa and Takamine, use their servo control to maintain proper focus and have no disclosure of calculating a variation per track of the focus error. The secondary references may detect focus error, but simply detecting it and calculating a variation of the focus error per track are two different things. Furthermore, neither of the two secondary references uses their focus error signal to control tilt.

The outstanding Office Action addresses this argument by alleging that Tamaru discloses these quoted features. However, Applicant has shown, above, that Tamaru clearly does not disclose these quoted features (e.g., in its claim 3).

The Office Action alleges that Tamaru discloses this feature in col. 5, lines 46-53. All that is disclosed in this portion of Tamaru is that Tamaru's

servo system 40, shown in Fig. 3, uses a focus drive DC voltage of optical pickup 25 as a signal for detecting the distance between optical disc D and optical pickup 25.

This disclosure is simply not a disclosure of calculating a variation of the focus error per track. Apparently realizing this, the Office Action speculates that the focus drive signal inherently has a maximum and minimum value and the focus drive signal as a whole produces a focus drive DC voltage that is the claimed "variation per track of the maximum value and the minimum value."

Applicant completely disagrees with this conclusion for a number of reasons.

Firstly, simply because a signal may have a maximum and a minimum value does not mean that such values are detected and a calculation is made of the variation per track of the maximum value and minimum value of the focus error.

The outstanding Office Action states that claim 1 does not recite that the maximum and minimum values are used to detect the variation per track of the maximum and minimum values of the focus error. Applicant agrees, however, Applicant respectfully submits that claim 2, which is a claim under rejection as part of this rejection, positively recites the step of calculating a variation per track of the maximum value and the minimum value of the focus error to detect a normalized DC component.

Secondly, simply producing a “focus drive DC voltage” does nothing about calculating the variation per track of the maximum value and minimum value of focus error.

In response to this previously presented argument, the Office Action refers to the previous argument, which indicates that the claimed feature is not found in claim 1. However, Applicant respectfully submits that this feature is recited in claim 2, which is one of the claims under rejection.

Accordingly, this rejection of claims 1 and 2 is improper and should be withdrawn.

With respect to claim 3, Tamaru never mentions “variation per track” of anything, let alone “variation per track of focus error,” and the assertion at col. 5, lines 46-61 has no basis in that portion of Tamaru. Moreover, the portion of claim 3 of Tamaru that is relied upon also fails to mention “variation per track” of anything, let alone “variation per track of focus error.” These are positively recited features of the claims that cannot be ignored and are neither disclosed nor suggested by any of the applied art.

In response to these previously presented arguments, the outstanding Office Action now asserts that the quoted language terminology is vague and indefinite and has been given its broadest reasonable interpretation. Applicant respectfully disagrees with this assertion and respectfully submits that if it were vague and indefinite, it would have been rejected under 35 USC §112,

second paragraph. Because the language in issue was not so rejected, Applicant respectfully submits that it is clear and definite. The Office Action, for the first time, states that "variation per track of focus error" is interpreted to mean "a DC component of a focusing signal, or more simply as a focusing signal."

This interpretation is newly presented and constitutes a new ground of rejection. As such, this rejection of claims 1-4 under 35 USC §103(a) should not have been made final. It has been prematurely made final and the finality of this Office Action is improper and should be withdrawn.

In response to this completely new ground of rejection, Applicant respectfully submits that all words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970), especially, the clear and definite words in issue, i.e., "variation per track of focus error." The approach taken in this regard by the Office reads out certain positively recited claim language, which is improper.

With respect to claim 4, as noted above, claim 4 has been canceled and a portion of the subject matter of claim 4 has been added to claim 1.

The arguments in the outstanding Office Action directed to the Takamine reference are simply irrelevant because no mention of that reference is found in this outstanding rejection.

Reconsideration and withdrawal of this rejection of claims 1-4 over the two applied references (reference to the third (Takamine) reference having been removed from the rejection itself) is respectfully requested.

Claims 5-7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Tamaru and Yamakawa, as applied in the rejection of claim 1, and further in view of U.S. Patent 5,808,984 to Baba. This rejection is respectfully traversed.

In view of the removal of Takamine from the rejection of claims 1-4, and the removal of Matsubayashi from this rejection, it appears that neither the Takamine reference nor the Matsubayashi reference is part of this rejection. Moreover, the Tamaru-Yamakawa reference combination does not render the claimed invention obvious at least for the reasons presented above regarding claim 1. Moreover, Baba is not applied to cure the deficiencies in the Tamaru-Yamakawa reference combination. Accordingly, this rejection of claims 5-7 is improper.

The outstanding Office Action asserts that this statement does not comply with 37 CFR §1.111(b). Applicant respectfully disagrees, because it is based on "the reasons presented above" regarding the impropriety of the Tamaru-Yamakawa reference combination.

Furthermore, the Office Action admits that the Tamaru-Yamakawa reference combination fails to render claims 5-7 obvious because it does not disclose the steps of detecting a surface vibration from the trembling of a disk and/or normalizing the surface vibration to control the tilt.

To remedy these admitted deficiencies, the Office Action turns to Baba, which does not control tilt, as recited. Instead of controlling tilt, Baba detects the tilt (inclination) and simply inhibits recording or reproduction based on the detected tilt.

The Office Action actually admits that Baba does not control tilt (on page 8) and speculates that because Tamaru and Yamakawa disclose this feature, normalizing vibration to control tilt would be the inherent result of combining these references. This speculation is incorrect because Yamakawa does not disclose controlling tilt in any way, shape or manner at all, as pointed out above.

The outstanding Office Action tacitly admits that Yamakawa does not disclose controlling tilt by stating that whether or not Yamakawa is directed to controlling tilt is irrelevant, the tilt control feature being disclosed by Tamaru.

Applicant respectfully points out that the asserted combination of references is also improper because the Office Action fails to provide objective factual evidence of proper motivation to modify the improper Tamaru-Yamakawa reference combination as suggested in view of Baba.

Firstly, Tamaru already has a simple method of controlling tilt, i.e., using his simple servo system with two photodetectors and shows no need to provide yet another method of detecting and compensating for tilt.

The Office Action states that this argument does not comply with 37 CFR §1.111(b). Applicant respectfully disagrees. The rejection of claims 5-7 is based on Tamaru and Applicant is clearly commenting on features disclosed by Tamaru.

Secondly, Baba does not disclose a method of controlling tilt. Instead, Baba merely teaches inhibiting recording when tilt is detected instead of controlling tilt. If anything, Baba teaches just the opposite of Tamaru and actually teaches away from compensating for tilt. This would logically lead one of ordinary skill in the art to disable the tilt control feature of Tamaru rather than use it.

The Office Action addresses this argument with the aforementioned “inherency” argument, which has been refuted above.

Thirdly, it is improper for an Examiner to pluck certain features from a reference while ignoring others in the same reference. Applicant respectfully submits that it is improper to ignore Baba’s teaching of not controlling tilt when tilt is detected.

The Office Action addresses this argument with the aforementioned “inherency” argument, which has been refuted above.

Moreover, the Office Action broadly responds to the failure to present objective factual evidence of proper motivation by referencing “page 8, last two paragraphs through page 9, paragraph 1, of the previous Office Action.”

The previous Office Action relied on the assertion that “applicant has not disclosed that detecting a surface vibration from trembling of a disk provides an advantage, is used for a particular purpose or solves a stated problem.” Applicant respectfully submits that it is not Applicant’s burden to demonstrate that its invention is patentable. Rather, the burden is on the Office to make out a prima facie case of unpatentability of the claimed invention.

Furthermore, the referenced “page 9, paragraph 1, of the previous office Action” clearly relies on Matsubayashi, which is stated to not be applied in the outstanding rejection (page 15, paragraph “o.” of the outstanding Office Action.

The Examiner cannot have it both ways, i.e., refer to a rejection that is based on a reference that is not being applied in the outstanding Office Action. This is known as a contradiction and a contradiction, logically, has no existence. Accordingly, there is no proper basis for this rejection.

With respect to claim 6, the normalized value referred to in claim 6 is what is normalized in claim 5, namely a normalized value of the variation per track of the focus error and the surface vibration. Tamaru’s DC voltage is not such a normalized value.



In response to this, the outstanding Office Action asserts that the Applicant's disclosure does not describe "normalizing the variation per track of the focus error and the surface vibration to control the tilt." Applicant respectfully disagrees and points out that what is relevant is what is recited in claim 5. Also, the language in issue is found not only in the claims as originally filed, but also on page 4, lines 16-18 of the main body of the specification.

Claim 7 is patentable at least for the reasons that claim 5 is patentable, as discussed above.

Claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Tamaru, Yamakawa, and Baba, as applied in the rejection of claim 5, and further in view of U.S. Patent 6,215,747 to Jobs. This rejection is respectfully traversed.

The Tamaru-Yamakawa-Baba reference combination does not render the claimed invention obvious at least for the reasons presented above regarding claims 1 and 5. Moreover, Jobs is not applied to cure the deficiencies in the Tamaru-Yamakawa-Baba reference combination. Accordingly, this rejection of claim 8 is improper.

The outstanding Office Action asserts that this statement does not comply with 37 CFR §1.111(b). Applicant respectfully disagrees, because it is

based on “the reasons presented above” regarding the impropriety of the Tamaru-Yamakawa-Baba reference combination.

Applicant again respectfully points out that the normalized value referred to in claim 8 is what is normalized in claim 5, namely a normalized value of the variation per track of the focus error and the surface vibration. Applicant submits that Jobs does not disclose such a feature. Jobs is directed to organizing data on a CD-ROM in order to increase data retrieval rate and is not directed to controlling tilt, and what the Office Action asserts is a normalized value, i.e., the location of a data file, is not a normalized parameter nor is it the normalized value recited in claim 8.

On page 18, the outstanding office Action only addresses the argument by Applicant that Jobs is not directed to controlling tilt by stating that is irrelevant. Applicant respectfully disagrees. One reason that one of ordinary skill in the art would not be motivated to look to Jobs is because Jobs is not directed to tilt control. Furthermore, the outstanding Office Action completely fails to respond to Applicant’s assertion that what the Office Action asserts is a normalized value is not disclosed to be a normalized parameter in general, or the normalized parameter recited in claim 8. In this regard, it is noted that the Office has the burden of establishing a *prima facie* case by objective factual evidence and has presented none in this regard. Moreover, because Jobs fails to even mention the word “normalized” any disclosure of the recited normalized

parameter has to be inherent rather than explicit. It is well settled that to establish that something is inherently disclosed, possibilities or probabilities are not permitted, i.e., what is inherently disclosed must be necessarily disclosed. All that the office Action presents in this regard is unsupported speculation. Applicant respectfully notes that there can be no speculation or only possibilities involved in a holding of inherency. What is alleged to be inherent must necessarily occur. The mere fact that something may result from a given set of circumstances is not sufficient. In re Oelrich, 212 USPQ 323, 326 (CCPA 1991). "Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art." Trintec Indus., Inc. v. Top-U.S.A. Corp., 295 F.3d 1292, 1295, 63 USPQ2d 1597, 1599 (Fed. Cir. 2002) (quoting In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)).

Accordingly, reconsideration and withdrawal of this rejection of claim 8 is respectfully requested.

Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Tamaru in view of Yamakawa and Baba, as applied in the rejection of claim 5, and further in view of U.S. Patent 6,452,897 to Van Den Enden. This rejection is respectfully traversed.

The Tamaru-Yamakawa-Baba reference combination does not render the claimed invention obvious at least for the reasons presented above regarding claims 1 and 5. Moreover, Van Den Enden is not applied to cure the deficiencies in the Tamaru-Yamakawa-Baba reference combination. Accordingly, this rejection of claim 9 is improper.

Applicant again respectfully points out that the normalized value referred to in claim 9 is what is normalized in claim 5, namely a normalized value of the variation per track of the focus error and the surface vibration. Applicant submits that Van Den Enden does not disclose such a feature. Van Den Enden is directed to an optical disc having track portions with periodic characteristics wherein the phase characteristics include a phase jump at a predetermined distance before each header and is not directed to controlling tilt, and what the Office Action asserts is a normalized value, i.e. the radial position of line 65, is not a normalized parameter nor is it the normalized value recited in claim 9.

On page 19, the outstanding office Action only addresses the argument by Applicant that Van Den Enden is not directed to controlling tilt by stating that is irrelevant. Applicant respectfully disagrees. One reason that one of ordinary skill in the art would not be motivated to look to Van Den Enden is because Van Den Enden is not directed to tilt control. Furthermore, the outstanding Office Action completely fails to respond to Applicant's assertion

that what the Office Action asserts is a normalized value is not disclosed to be a normalized parameter in general, or the normalized parameter recited in claim 9. In this regard, it is noted that the Office has the burden of establishing a *prima facie* case by objective factual evidence and has presented none in this regard. Moreover, because Van Den Enden fails to even mention the word "normalized" any disclosure of the recited normalized parameter has to be inherent rather than explicit. It is well settled that to establish that something is inherently disclosed, possibilities or probabilities are not permitted, i.e., what is inherently disclosed must be necessarily disclosed. All that the office Action presents in this regard is unsupported speculation. Applicant respectfully notes that there can be no speculation or only possibilities involved in a holding of inherency. What is alleged to be inherent must necessarily occur. The mere fact that something may result from a given set of circumstances is not sufficient. In re Oelrich, 212 USPQ 323, 326 (CCPA 1991). "Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art." Trintec Indus., Inc. v. Top-U.S.A. Corp., 295 F.3d 1292, 1295, 63 USPQ2d 1597, 1599 (Fed. Cir. 2002) (quoting In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)).

Reconsideration and withdrawal of this rejection of claim 9 is respectfully requested.

Claim 10 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,001,690 to Kamiya et al. ("Kamiya") in view of Yamakawa and further in view of U.S. Patent 4,712,205 to Smid et al. ("Smid"). This rejection is respectfully traversed.

Claim 10 has been amended by changing: "wobbling a tilt driving block at a certain frequency" to - -wobbling a tilt driving block according to a reference level in a predetermined direction - -.

Kamiya does not disclose wobbling a tilt drive block according to a reference level in a predetermined direction, as claimed. Kamiya discloses a tilt servo circuit that tilt drives periodically in either direction depending on whether the RF level has increased or decreased as a result of a preceding drive – see col. 4, lines 3-28. Kamiya does not disclose wobbling according to a reference level in a predetermined direction, as claimed. Wobbling according to a reference level in a predetermined direction is not disclosed or suggested by any of the applied art.

All that Kamiya discloses is a tilt motor 50 and a tilt motor drive 48. The Office Action has not provided objective factual evidence that driving an optical pickup with a tilt motor constitutes "wobbling." Moreover, because the term "wobbling" is not disclosed, it must necessarily occur and the Office Action presents only improper speculation in this regard.

Nor does Kamiya use a focus error signal to control tilt. Instead, Kamiya uses a tilt error servo, separate from its focus error servo, to control tilt – see Fig. 1 and its associated description.

The Office Action admits that Kamiya does not disclose obtaining a focus error track at a point where a RF signal has the maximum value, or normalizing the detected FE track.

In an attempt to remedy these deficiencies, the Office Action turns to Yamakawa and Smid.

As noted above, Yamakawa has no disclosure of a tilt feature and, instead, is directed to obtaining a neutral focus balance characteristic for different layers of a multilayer disk. In other words, Yamakawa is not directed to controlling tilt at all and the Office Action contains no objective, factual evidence that a skilled worker would be motivated to apply the focus control servo of Yamakawa to control the tilt of Kamiya, especially because Yamakawa does not disclose using a focus error signal to control tilt and because Kamiya does not disclose using a focus error signal to control tilt. As noted above, Kamiya discloses a separate tilt error servo (i.e., separate from its focus error servo), to control tilt.

These arguments are not addressed in the outstanding Office Action other than to incorporate the arguments above, none of which address these arguments in any detail.

Accordingly, one of ordinary skill in the art would not be motivated to modify Kamiya in view of Yamakawa, as suggested.

The Office Action then turns to Smid, which discloses using a normalized focusing error signal.

Applicant respectfully submits that even if the FE signal of the aforementioned improper Kamiya-Yamakawa reference combination were normalized in view of Smid, this would not render the claimed invention obvious because, as pointed out above, the Office Action has not made out a *prima facie* case of modifying Kamiya in view of Yamakawa, as suggested.

These arguments are not addressed in the outstanding Office Action other than to incorporate the arguments above, none of which address these arguments in any detail.

Moreover, the proposed reference combination does not meet, or render obvious, the claimed invention for reason discussed above.

Reconsideration and withdrawal of this rejection of claim 10 is respectfully requested.

Claim 11 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,805,543 to Takamine et al, ("Takamine") in view of JP 01307933 to Suzuki. This rejection is respectfully traversed.



Takamine does not disclose a servo controlling unit having a tilt error detecting and controlling block for receiving RF and focus error signals outputted from said RF and servo error producing unit to produce DC and AC values about the tilt initialization and about an optical disk, as recited.

The Office Action turns to Suzuki in an attempt to remedy the shortcomings of Takamine.

Applicant notes that the Examiner was kind enough to send Applicant's below-named representative, a copy of the English language translation of Suzuki that is mentioned on page 20, last paragraph of the outstanding Office Action.

Suzuki does not mention tilt initialization nor does Suzuki disclose producing DC and AC values about the tilt initialization and about an optical disk. Instead, Suzuki discloses detecting the focus drive DC voltage of the optical pickup and applies a tilt servo so the detected DC value becomes constant. See, for example, the sentence bridging pages 8 and 9 of the translation which states that ". . . and along with detecting by the focus drive's DC voltage of said optical pickup . . . there is established a sub means which controls the above-mentioned tilt means so as to fix this detected value."

So, even if these references were combined as suggested, they would not result in, or render obvious, the claimed invention.

Moreover, the Office Action has not provided objective factual evidence of proper motivation to modify Takamine in view of Suzuki, as suggested, because Takamine appears to work properly without the need to be redesigned and the Office Action fails to indicate how Takamine's pulse width variation detector would work if the signal fed to it were the DC signals generated by Suzuki, which are clearly disclosed as becoming constant.

The outstanding Office Action continues to rely on its speculative motivation by reiterating that it would be obvious to modify Takamine in view of Suzuki "to obtain a reproducing signal of high accuracy without being influenced by a surface state of an optical disk." This is nothing more than a broad, general conclusion of the type that is not specific enough to provide proper motivation to modify Takamine, as suggested. Compare, In re Dembiczak, cited above. Moreover, the Office Action fails to explain why one of ordinary skill in the art would be motivated to modify Takamine's state-of-the-art circa 1998 tilt control system in which face shake of a disc is provided (col. 5, lines 37-43) with Suzuki's circa 1988 tilt control system. Nor has the Office Action demonstrated that the alleged modification of Takamine will result in a workable device as it does not indicate what aspects of Takamine are going to be disabled or replaced by Suzuki's system.

Furthermore, claim 11 has been amended to include the subject matter from claim 12. Applicant respectfully traverses this rejection for a number of

reasons and addresses the rejections of record of both claims 11 and 12 for a number of reasons.

Firstly, the Takamine-Suzuki reference combination is improper for the reasons discussed above, and Yamakawa is not applied (in the rejection of claim 12, the subject matter of which is now in claim 11) to remedy the aforementioned improprieties in the Takamine-Suzuki reference combination. Therefore, the Takamine-Suzuki-Yamakawa reference combination does not render the claimed invention obvious.

Secondly, the Office Action speculates that an inherent result of the combination of Takamine and Suzuki in the rejection of claim 11 is a tilt error detecting and control block that includes a tilt controlling block for controlling the tilt using the RF signal and an FE signal.

Applicant respectfully disagrees because there is no proper motivation for combining these references, as suggested.

The Office Action also admits that neither Takamine nor Suzuki discloses including a peak error detecting block for detecting the peak of an RF envelope and a detecting block for detecting the maximum and minimum values of a focus error per one rotation of a disk.

As to the "one rotation per disk" feature, the Office Action provides no objective, factual evidence of the existence of such a feature in any of the applied

references, or of the obviousness of including such a feature in the three applied references.

Instead, the Office Action improperly states that Applicant has not disclosed that this feature provides an advantage and that adding such a feature would be an obvious matter of design choice.

This type of rationale is fundamentally unsound and has been since the 1952 Patent Act was enacted and in view of decisions such as Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), discussed above.

During patent examination the PTO bears the initial burden of presenting a *prima facie* case of unpatentability. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). If the PTO fails to meet this burden, then the applicant is entitled to the patent.

A rejection must be based on objective evidence of record, not merely conclusionary statements of the Examiner. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). The Office cannot shift its burden of making a *prima facie* case of obviousness of the claimed invention by referring to unobvious or unexpected results or by speculating that a claimed feature is a mere design choice.

An Examiner may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight

reconstruction to supply deficiencies in the factual basis required to make a proper rejection under the statutes, See, In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968).

The Office may not shift the burden to Applicant to disprove obviousness when the Office has not made out a *prima facie* case of obvious, including a *prima facie* case of proper motivation to provide a “per one rotation of the disk” feature.

In response to these previously presented arguments, the Office Action states that the only difference between the prior art and the claimed invention is the frequency of detecting the maximum and minimum value of the focus error and selection of a different frequency would not cause the device to perform differently than the prior art device. Reference is made to Gardner v. TEC Systems, Inc., 220 USPQ 777 (Fed. Cir. 1984). Applicant respectfully disagrees with this speculation and with applying the “Gardner” case as a “per se” rule of obviousness.

In the first place, the Office Action has not made out a *prima facie* case of obviousness of the claimed invention, either with or without the “per one rotation” feature, for reasons stated above.

In the second place, the Office Action is improperly using the “Gardner” case to establish a “per se” rule of obviousness. As stated by the Federal Circuit in In re Ochiai, 71 F.3d 1565,1572, 37 USPQ2d 1127, 1133 (Fed. Cir. 1995),

“reliance on *per se* rules of obviousness is legally incorrect and must cease.” [1]  
For a *prima facie* case of obviousness to be established, the teachings from the prior art itself must appear to have suggested the claimed subject matter to one of ordinary skill in the art. See, In re Rinehart, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976). The mere fact that the prior art could be modified as proposed by the examiner is not sufficient to establish a *prima facie* case of obviousness. See In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992). The Examiner must explain why the prior art would have suggested to one of ordinary skill in the art the desirability of the modification. See Fritch, 972 F.2d at 1266, 23 USPQ2d at 1783-84.

Accordingly, the Office Action has not made out a *prima facie* case of obviousness of the invention recited in claim 11.

Reconsideration and withdrawal of this rejection of claim 11 are respectfully requested.

Claim 12 stands rejected under 35 USC §103(a) as unpatentable over Takamine in view of Suzuki applied in the rejection of claim 11 and further in view of Yamakawa. This rejection is traversed as moot in view of the cancellation of claim 12. However, because the subject matter of claim 12 has been added to claim 11, this “three-reference” rejection is addressed, above, in the traversal of the rejection of claim 11.

A fair, balanced appraisal of the prior art rejections of record indicate that they are prompted primarily by hindsight reconstruction of Applicant's claimed invention based solely on Applicant's disclosure.

#### Additional Cited References

Because the remaining references cited by the Examiner have not been utilized to reject the claims, but have merely been cited to show the state of the art, no comment need be made with respect thereto.

#### Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Robert J. Webster, Registration No. 46,472, at (703) 205-8076, in the Washington, D.C. area.

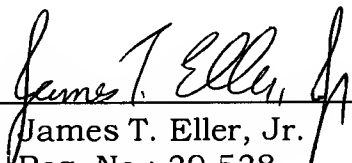
Prompt and favorable consideration of this Amendment is respectfully requested.

Applicant respectfully petitions under the provisions of 37 C.F.R. §1.136(a) and §1.17 for a two-month extension of time to February 20, 2006 in which to respond to the Examiner's Office Action. The Extension of Time Fee in the amount of \$450.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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